NEWMAN (Robt.

THE ELECTROLYTIC TREATMENT

—OF—

URETHRAL STRICTURES,

WITH A FEW SELECT CASES,

BY

ROBERT NEWMAN, M. D.,

OF NEW YORK CITY.

REPRINT FROM

New England Medical Monthly,

JUNE, 1883.

With the
COMPLIMENTS
of

Robert Newman

ADDITIONAL ANSWERS TO CORRESPONDENTS ABOUT THE ELECTROLYTIC TREATMENT OF URETHRAL STRICTURES, WITH A FEW SELECT CASES.

BY ROBERT NEWMAN, M. D., NEW YORK.

Permanent Member American Medical Association, Honorary Member Ulster County Medical Society, Member Pathological Society, N. Y., etc.

SINCE the publication of my articles in the *New York Medical Record*, August 12th and 19th, 1882, "Ten Years Experience in the Treatment of Stricture of the Urethra by Electrolysis," a large correspondence has been received from physicians, either making further queries about the method, or reporting success in adopting it.

I have answered many practical and theoretical questions by letter, but found the correspondence accumulating; many needing too long explanations, so that it was impossible to do justice to the subject in all cases. This article is intended to supply this want, and my correspondents will find in it their queries answered, and all supplementary information given, either in the new cases related, or in the brief tabulated rules about the operation.

Since my last report was written, August, 1882, almost daily new cases have been presented and treated, with the same uniform success as related in the former paper. Scarcely any simple cases came, and most of them were the worst and most aggravated strictures, which can come under observation, and many patients were accompanied by their family physicians, who acknowledged that they could not pass such strictures with any instrument, no matter how small. In all cases the strictures were passed by the electrode bougie. This means that the absorbent power of the electrolysis enabled that size of the instrument to pass, which could not have been done without the aid of the electrolysis. To illustrate this power and the method, some selected cases will be related here.

CASE I.—*Six strictures of 25 years standing, impassable by instruments, cured by Electrolysis.*

October, 1882, Dr. D., æt. 57 years, a regular physician, practicing in Long Island, suffered with strictures of the urethra for over 25 years, and has been treated off and on, in the usual manner, with only temporary relief. He noticed the stricture first in 1857, which gradually became worse. Since 1877 he has been under the care of one of our most eminent surgeons, lately deceased, who during these years never could pass an instrument through all the strictures into the bladder.

1882, October 17th.—Patient came under my treatment, complaining of having scarcely a stream of water at all, not being able to use a force sufficient to propel the water. The stream is very small, almost diminished to a dribble. Penis is cold and flabby. Meatus is large, admitting a sound, No. 26, French. A small whalebone bougie à boule detects the whole urethra in an indurated state, scarcely free from strictures anywhere. The whole canal is a mass of strictures with little intermissions, and the small bulb is arrested everywhere. The bougie passed with difficulty three distinct strictures, and was firmly grasped and arrested at the fourth, at 5 inches from the meatus. No instrument would pass this fourth stricture.

I. *Electrolysis.*—The patient was kept standing, resting himself with one hand on the back of a chair, the other hand holding the electrode from the positive pole of the battery, and pressing the wet sponge cover against the thigh. A stiff

electrode bougie, insulated, except the metal end, egg shaped, No. 11, French, is introduced into the urethra, the other end of the bougie is connected with the wire, which in turn is connected with and used as the negative pole of the battery, and completes the circuit. As soon as the bougie is arrested by the first stricture, the current of the electricity is slowly increased cell by cell, till the susceptibility of the patient tells that the current is strong enough, without causing pain. During this seance ten cells were used for twenty minutes. There was slow progress but the electricity worked its way through all the strictures, and at last entered the bladder. The current was kept up while the bougie was being withdrawn, and was held loosely in each stricture till it could be moved easily, and it was distinctly felt that the contraction was absorbed. The bougie was neither pushed nor pulled, only guided by two fingers of the hand. The work was thereby done entirely by the galvanism, without causing any pain nor a particle of hemorrhage. The patient was much pleased with the result, and passed water immediately in a good full stream. From this operation the seat of the strictures was ascertained to be as follows:

1st	Stricture	at	$1\frac{3}{4}$	inches	from	the meatus.
2nd	"	"	$2\frac{1}{4}$	"	"	"
3rd	"	"	$4\frac{1}{2}$	"	"	"
4th	"	"	5	"	"	"
5th	"	"	$5\frac{3}{4}$	"	"	"
6th	"	"	7	"	"	"

November 8th.—Since the last operation, about three weeks ago, patient has attended to his practice, and has felt better, than for many years.

II. *Electrolysis* was used in the same manner as before, with an electrode bougie, No. 14, French, which passed through all the strictures in ten minutes, while a current of ten cells was working.

November 18th. III. *Electrolysis* with a conical sound No. 17, as the negative pole, which after passing, was replaced by a No. 17, French, egg-shaped bulb. In withdrawing, the latter worked up and absorbed each stricture in turn, so that the instrument could be moved about freely without any restriction; ten cells were used for thirteen minutes. To use two electrodes in succession during one seance is against the rules, but was indicated in this case as an exception.

December 22nd, 1882. IV. *Electrolysis.*—Bougie No. 20, French, with ten cells for ten minutes. Strictures were tight, but offer less resistance, and bougie soon passed through all of them. There is much improvement.

1883, *January 5th.* V. *Electrolysis.*—Bougie No. 21 passed easily; nine cells for twelve minutes.

January 19th. VI. *Electrolysis.*—Bougie No. 23 for twelve minutes, with a current of eight cells, passed, but had to work each stricture separately.

February 13th. VII. *Electrolysis.*—Bougie, No. 26, French, with seven cells for eleven minutes, passed more easily than ever before. In four minutes had worked through all strictures, and passed into the bladder. Not the slightest pain was occasioned. The patient is in excellent health, has regained a natural stream of water with good force, and says he feels better now than he ever did during the last 25 years. Is well in every respect.

CASE II.—*Four strictures 15 years old, with incontinence of urine.*

October 17th, 1882.—Mr. B., from Jersey, was brought to my office by Dr. Field. The patient has suffered for fifteen years without being cured by the usual methods. He is now run down, very weak, has lost flesh, is never free from pain, is constantly straining, and can neither pass water, nor retain it. The urine dribbles away constantly from overflow, and thereby excoriates the tender skin, notwithstanding that the patient wears an urinal. The patient passes sleepless nights and is in constant agony. At present no instrument will pass. On examination, I found that no instrument

would pass the strictures. The exploring bougie à boule encountered a mass of hard strictures, which were passed only by manipulation and with difficulty, and was soon arrested. Then a small filiform guide entered everywhere into lacunæ, which bled on ever so careful an examination, and at five inches from the meatus no instrument would pass any further. The family physician present, said he knew that no instrument would pass any further than five inches. If he had been able to pass it, he would not have brought the patient to me. Electrolysis was then tried. The patient was placed on the operating table in a half recumbent position. The positive sponge electrode was held on the abdomen; the negative pole in the form of a No. 14 French bougie was inserted into the urethra. The electric current was gradually increased to eleven cells and during seven minutes the bougie made steady progress, advancing slowly, and working its way into the bladder, to the great relief of everybody present. There were four distinct strictures at 3½, 5, 6½ and 8 inches respectively from the meatus.

October 27th.—Filiform bougie was tried in vain, it hung in lacunæ everywhere, and fearing to cause too much irritation, it was abandoned. A whalebone bougie No. 8 passed easily into the bladder.

II. *Electrolysis* was used with a bougie, No. 14, French, which, with a power of seven cells, worked slowly through all the strictures. The third stricture was very tight. Present, Drs. Field, Payne and Brush.

The electrolytic applications were continued at intervals of ten days. In four seances up to November 28th, the patient has so much improved that he has gained fifteen pounds of flesh, which gives him normal weight; the water passes freely; the bladder is entirely under control, and the urinal discarded. He is well, attends to his business and enjoys life.

Case III.—*Four strictures of 20 years standing cured by four seances of Electrolysis.*

November 14th, 1882.—Telor T., æt. 62 years, residing in New York city, came to me with complete occlusion of the urethra, and consequent retention of urine. Has suffered for twenty years with strictures, a consequence of urethritis. No treatment has cured him. The strictures became worse, so that recently he is in constant pain, having had retention and incontinence at the same time, the water constantly dribbling away and incapacitating him for any work. The smallest instrument would not pass the stricture, but an electrode bougie, No. 14, French, worked its way slowly, with the power of twelve cells for seventeen minutes, through all the strictures and into the bladder. Present, Drs. Meier and Bassett.

December 20th.—After three electrolytic applications, the patient says that his stream is large, and he is better in every way than for the last twenty years. Soon after a bougie, No. 23, French, passed easily.

Case IV.—*Stricture of ten years—Rupture (partial) of urethra.*

1883, *February 20th.*—Dr. Munson, of Bridgeport, had the kindness to bring this interesting case to my office, with the following history: Mr. A., æt. 36 years, suffers from a stricture of over ten years standing, a consequence of urethritis, which off and on closes up. He is an inventor and made himself an instrument for the dilatation of the stricture, consisting of a steel rod, surrounded by a spiral spring, which by turning was inserted into the stricture like a corkscrew. He felt the stricture closing up entirely, and used his instrument as he had done before. In giving another twist, he ruptured the urethra, which caused severe pain and hemorrhage. Micturition could only be performed imperfectly, merely by an overflow of the bladder, causing a dribbling away. The patient was brought to my office by his family physician, Dr. Munson. From

the history of the case it was evident, that the treatment most indicated for relief would be perineal section, but as the patient needed immediate relief, I tried the introduction of instruments into the urethra. Whalebone bougies à boule, and guides of different sizes would not enter further than five inches, the seat of the stricture and rupture. Each guide entered and stuck in some of the pouches, but none entered or passed the stricture. Therefore the filiforms were abandoned for fear of creating more irritation and hemorrhage, and direct Electrolysis tried. An electrode bougie, No. 12, French, as negative pole, was carefully introduced and manipulated in the urethra, while the positive sponge electrode, held above the pubes, closed the circuit of a galvanic battery of which seven cells were used. The bulb of the electrode glided by manipulation over the partial rupture of the urethra and engaged itself in the stricture, where it advanced slowly, absorbing and finally passing. The patient was nervous, but held still, felt each movement as the bougie advanced, without any pain, nor was a drop or a show of blood drawn. Immediately after this operation the patient passed a steady good stream of water such as he had not seen for years.

The Electrolysis was used for ten minutes. Rectal suppositories of belladonna were ordered.

March 6th.—Since the operation the patient has felt comfortable, and the stream of water has increased in size. Electrolysis with a bougie, No. 14, French, was worked for twenty minutes with eleven cells, and passed the stricture slowly, absorbing considerably the indurated masses. On April 10th, Dr. Munson reported the patient much improved and doing well.

Aggravated cases like the foregoing and others with different complications I see often, almost daily, so that I could tabulate hundreds of them. The operation never causes pain, nor detention from ordinary business, which often surprises the patient. A physician residing in Connecticut, who had been treated at my office, wrote me on his return home: "I was much surprised to find that there was less irritation after the use of electricity, than after the introduction of the simple sound. The annoyance caused by the electricity was simply zero."

Since my article was written last summer, I have received many reports from eminent practitioners, that they have either adopted my method, or have practiced it independently with equal success. Among others, Dr. D. A. Farrand, of Detroit, Mich., writes Oct. 6th, 1882, that after reading my article, he has operated with Electrolysis on about eighteen strictures with very gratifying results. Great pleasure was given me in a letter from Dr. Hutchinson, of Providence, dated September 28th, 1882, in which he says, he has operated in twenty-one cases, in the last six months, with unvarying success.

By the unique good results the method of electrolysis in the treatment of strictures is fully tried and established; every day brings new converts, and new friends.

I will conclude this article with some rules, as a safe guide for practitioners, who wish to adopt the treatment of electrolysis in stricture of the urethra, which will also serve as answers to numerous questions received from correspondents.

1. The *battery* needed, is any good, steady *galvanic* battery; the 20 cell Drescher battery is a good and cheap instrument, sufficient to begin with. H. E. Stammers, 1430 Broadway, New York city, has made me an excellent battery, which has many advantages.

2. The *fluid* for the battery ought not be used too strong.

3. *Rheostate* and *galvanometer*, attached to the batteries, are convenient niceties, but for our purpose, and the battery used, *not* necessary.

4. For the positive pole a carbon electrode is used, covered with sponge, mois-

tened with warm water, and held firmly against the cutaneous surface of the patient's hand, thigh or abdomen.

5. For the absorption of the stricture the negative pole is always used.

6. Electrode bougies are firm sounds insulated, with a hard baked mass of rubber; the point is a metal bulb, egg-shaped, which is the acting part in contact with the stricture. These electrode bougies are made by Geo. Tieman & Co., as also by H. E. Stammers, and other instrument makers.

7. The curve of the bougie is short; large curves are mistakes.

8. The plates must be immersed in the battery fluid before the electrodes are placed on the patient, and raised again after the electrodes have been removed.

9. All operations must begin and end while the battery is at zero, increasing and decreasing the power of the current slowly, and gradually; avoiding any shock to the patient, or any interruption of the current.

10. Before operating, the susceptibility of the patient to the electric current should be ascertained.

11. The problem is to absorb the stricture, not to cauterize.

12. At first it is best to operate only by the first method of absorption, "*weak currents, at long intervals.*"

13. The exact number of cells to be used can not be given, it must be regulated according to the work to be done. As a general rule six to twelve cells may be used.

14. The seances should be at intervals, not too frequent in succession.

15. The best position for the patient to assume during the operation, is that which is most comfortable for him and the operator. I prefer the erect posture, but the recumbent, or others may be used.

16. Anæsthetics I like to avoid; I want the patient conscious, so that he can tell how he feels.

17. Force should never be used; the bougie must be guided in the most gentle way; the electricity alone must be allowed to do the work.

18. During one seance, two electrodes in succession should never be used.

19. All strictures are amenable to the treatment by electrolysis.

20. Pain should never be inflicted by the use of electrolysis; therefore it should not be applied, when the urethra is in an acute, or even subacute inflammatory condition.

68 West 35th Street,
New York, May, 1883.

PRINTED BY
GOULD & STILES—BOOK AND JOB PRINTERS,
Bridgeport, Conn.

THIS PAPER

WAS PUBLISHED IN THE

New England Medical Monthly,

A MONTHLY JOURNAL DEVOTED TO THE

SCIENCE AND PRACTICE OF MEDICINE AND SURGERY.

IT IS SUPPORTED BY THE MOST ABLE CONTRIBUTORS AND WRITERS IN THIS COUNTRY AND ABROAD. EVERY ISSUE CONTAINS FIFTY PAGES OF READING MATTER WHICH IS DIVIDED INTO THE FOLLOWING HEADINGS: ORIGINAL COMMUNICATIONS, EDITORIALS, BOOK NOTICES, REVIEWS AND CURRENT MEDICAL LITERATURE, REPORTS OF SOCIETIES, OBITUARY NOTICES, ABSTRACTS, NOTES AND COMMENTS.

PROBABLY NO MEDICAL JOURNAL HAS EVER BEEN PUBLISHED IN THIS COUNTRY THAT HAS IN SO SHORT TIME ACHIEVED SO GREAT A POPULARITY.

All communications of whatever nature, should be addressed to the undersigned,

WILLIAM C. WILE, M. D.,
Editor and Publisher, SANDY HOOK, CONN.